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09/901,472	07/09/2001	Peter K. Kassab	503404.00005	6545
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BANNER & WITCOFF, LTD. TEN SOUTH WACKER DRIVE SUITE 3000 CHICAGO, IL 60606			MAKI, STEVEN D	
		ART UNIT	PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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09/901,472

EXAMINER

ART UNIT PAPER

041107

DATE MAILED:

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Commissioner for Patents

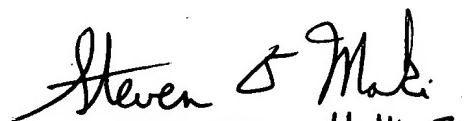
See (1) ATTACHMENT A FOR PAPER NO. 041107 and
(2) ATTACHMENT B FOR PAPER NO. 041107.

ATTACHMENT A FOR PAPER NO. 041107

This communication is in response to the remand dated February 28, 2007.

In the remand dated 2-28-07, the Board of Patent Appeals and Interferences ordered the examiner to obtain the necessary English translation of Japan 014 (JP 09-97014). An English translation of Japan 09-97014 is provided in ATTACHMENT B FOR PAPER NO. 041107. In the remand dated 2-28-07, the Board also stated that the examiner should further consider the rejection. The translation of Japan 014 in ATTACHMENT B FOR PAPER NO. 041107 and the rejections set forth in the Examiner's Answer dated May 31, 2006 have been considered, but no further response is deemed necessary.

The application has been forwarded to the Board of Patent Appeals and Interferences for decision on the appeal.


STEVEN D. MAKI
PRIMARY EXAMINER
4-11-07

ATTACHMENT B FOR PAPER No. 041107

PTO 07-3269

Japanese Patent
09097014

METHOD FOR MANUFACTURING ADORNMENTS SUCH AS BADGES, STICKERS, ETC.

[Sutikka, Wappen to Soshokutai no Seizo Hoho]

Shinhachiro Nishizawa

UNITED STATES PATENT AND TRADEMARK OFFICE
Washington, D.C. March 2007

Translated by: Schreiber Translations, Inc.

(54) Title of the invention

Method for manufacturing adornments such as badges, stickers, etc.

(57) Summary

Objective: To provide an unprecedented method for manufacturing, in simple & efficient manners at low costs, adornments such as badges, stickers, etc. bearing structures wherein the surfaces of patterns are covered with bulging transparent resins.

Solution mechanism: A pattern (4) comprised of one or multiple & mutually laminated layers of the ink (2) and/or foil (3) is conferred, by means of printing or foil pressing, onto the rear plane of a thermoplastic transparent resin sheet (5) such as vinyl chloride, etc., and after said transparent resin sheet (5) has then been inverted, the frontal plane of the same is impression-molded by using the mold (9) for melt-fracturing the peripherals of the aforementioned pattern (4) in such a way that rounded cutting edges (6) will become generated.

Patent Claim

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Claim 1

A method for manufacturing adornments such as badges, stickers, etc. characterized by the fact that a pattern (4) comprised of one or multiple & mutually laminated layers of the ink (2) and/or foil (3) is conferred, by means of printing or foil pressing, onto the rear plane of a thermoplastic transparent resin sheet (5) such as vinyl chloride, etc. and that, after said transparent resin sheet (5) has then been inverted, the frontal plane of the same is impression-molded by using the mold (9) for melt-fracturing the peripherals of the aforementioned pattern (4) in such a way that rounded cutting edges (6) will become generated.

Detailed explanation of the invention

[0001]

(Industrial application fields)

The present invention concerns a method for manufacturing adornments such as badges, stickers, etc.

[0002]

(Prior art)

A structure whereby a pattern applied to a base is covered, in a bulging manner, with a transparent resin is known as a type of adornments such as badges, stickers, etc.

[0003]

In a case where such an adornment is manufactured in the prior art, a method wherein the surface of a base is patterned by means of printing or foil pressing, wherein a transparent thermocurable resin (e.g., epoxy resin, urethane resin, etc.) is then poured onto the obtained pattern (so-called “potting”), wherein the surface of said resin is induced to bulge due to surface tension, and wherein said resin is finally cooled & solidified is being used.

[0004]

(Problems to be solved by the invention)

Convolved & cumbersome processes are required for the aforementioned manufacturing method of the prior art, for the resin must be poured and then heated, and accordingly, problems of a low productivity & cost appreciation are unavoidable.

[0005]

The objective of the present invention is therefore to provide an unprecedented method for manufacturing, in simple & efficient manners at low costs, adornments such as badges, stickers, etc. bearing structures wherein the surfaces of patterns are covered with bulging transparent resins.

[0006]

(Mechanism for solving the problems)

In order to achieve the aforementioned objective, the method of the present invention for manufacturing adornments such as badges, stickers, etc. is characterized by the inclusion of a process whereby a pattern (4) comprised of one or multiple & mutually laminated layers of the ink (2) or foil (3) is conferred, by means of printing or foil pressing, onto the rear plane of a thermoplastic transparent resin sheet (5) such as vinyl chloride, etc., a process whereby said transparent resin sheet (5) is then inverted, and a process whereby the frontal plane of the same is impression-molded by using the mold (9) for melt-fracturing the peripherals of the aforementioned pattern (4) in such a way that rounded cutting edges (6) will become generated.

[0007]

(Application examples)

First, Figure 1 ~ Figure 7 pertain to an application example for manufacturing a sticker. In Figure 1 & Figure 2, a completed sticker (1) is shown, whereas in these figures, the notations (2) & (3) respectively signify an ink & a foil, whereas the pattern (4) is formed by laminating said ink (2) & foil (3). The notation (5) signifies a transparent resin sheet (e.g., vinyl chloride, etc.) that covers the pattern (4). The peripheral edges of this transparent resin sheet (5) are rounded (6). Moreover, the notations (7) & (8) respectively signify a double-sided adhesive tape & a peelable paper.

[0008]

Figure 3 ~ Figure 7 show processes for manufacturing the aforementioned sticker (1). First, as Figure 3 indicates, the rear plane of a transparent thermoplastic resin sheet (5) comprised of vinyl chloride, etc. is disposed upward, and the plane thus upturned is partially printed with the pattern (4). The notation (2) signifies an ink adhered as a result of this printing.

[0009]

Next, as Figure 4 indicates, the plane thus printed is pressed with a foil, as a result of which a completed pattern (4) becomes obtained. The notation (3) signifies said foil used for foil pressing. Incidentally, the foil pressing may be executed on multiple occasions, whereas hairlines or holograms may be used in place of said foils. Although the pattern (4) may, as in the aforementioned embodiment, be formed by laminating the ink (2) & foil (3), the pattern (4) may instead be formed based solely on printing or foil pressing.

[0010]

Next, as Figure 5 indicates, a double-sided adhesive tape (7) to which a peelable paper (8) has been attached is pasted onto the respective layers of the ink (2) & foil (3) constituting the pattern (4). Incidentally, this double-sided adhesive tape (7) is indispensable for manufacturing the sticker (1), as in the present application example, although since double-sided adhesive tapes are unnecessary in cases where badges, etc. are manufactured, this process may accordingly be dispensed with.

[0011]

Next, as Figure 6 indicates, the transparent resin sheet (5) onto which the pattern (4) has become conferred during the aforementioned process is inverted upside down. In other words, the frontal surface of said sheet is turned upward. The mold (9) is then lowered from above for executing a mold impression process, as a result of which the peripherals of the aforementioned pattern (4) become melt-fractured in such a way that rounded cutting edges (6) will become generated. It is thus that the aforementioned sticker (1) becomes completed.

[0012]

Figure 8, furthermore, shows a completed state of another sticker (10). This sticker (10) is patterned by means of printing alone by dispensing with the foil pressing process. The other processes are identical to those for manufacturing the aforementioned sticker (1).

[0013]

Figure 9, furthermore, shows a completed state of the badge (11). This badge (11), too, is manufactured by processes similar to those for manufacturing the aforementioned sticker (1), although the process for pasting the double-sided adhesive tape (7) to which the peelable paper (8) has been attached is dispensed with.

[0014]

(Functions & effects of the invention)

As has been demonstrated above, the method of the present invention for manufacturing adornments such as badges, stickers, etc. is capable of dispensing with convoluted processes of the aforementioned embodiment of the prior art (i.e., one whereby a resin is poured atop a patterned base and one whereby said resin is subsequently heated & solidified), and since it suffices to simply melt-fracture a transparent resin sheet (5) wherein a pattern (4) has been attached to the rear plane thereof, mass production becomes possible in simple & efficient manners. Bases indispensable for patterning purposes in the prior art, furthermore, can be obliterated in the present invention by patterning (4) the rear plane of the transparent resin sheet (5), and accordingly, some materials can be dispensed with. The method of the present invention for manufacturing adornments such as badges, stickers, etc. therefore bears, in comparison with the manufacturing method of the prior art, the advantage of promising a remarkable cost depreciation. /3

Brief explanation of the figures

Figure 1: A diagram which shows an oblique view of a completed sticker.

Figure 2: A diagram which shows a cross-sectional view of the A-A line in Figure 1.

Figure 3: A diagram which shows a cross-sectional view of a state where a transparent resin sheet has been printed.

Figure 4: A diagram which shows a cross-sectional view of a state where a foil has been pressed onto the printed sheet.

Figure 5: A diagram which shows a cross-sectional view of a state where a double-sided adhesive tape has been pasted onto the ink & foil layer.

Figure 6: A diagram which shows a cross-sectional view of a state where the patterned transparent resin sheet has been inverted upside down and then pressed with an impression mold.

Figure 7: A diagram which shows a cross-sectional view of a state where the transparent resin sheet is being melt-fractured.

Figure 8: A diagram which shows a cross-sectional view of a completed state of another sticker.

Figure 9: A diagram which shows a cross-sectional view of a completed state of a badge.

(Explanation of notations)

- (1): Sticker;
- (2): Ink;
- (3): Foil;
- (4): Pattern;
- (5): Transparent resin sheet;
- (6): Rounded edges;
- (7): Double-sided adhesive tape;
- (8): Peelable paper;
- (9): Mold;
- (10): Sticker;
- (11): Badge.

Figure 1

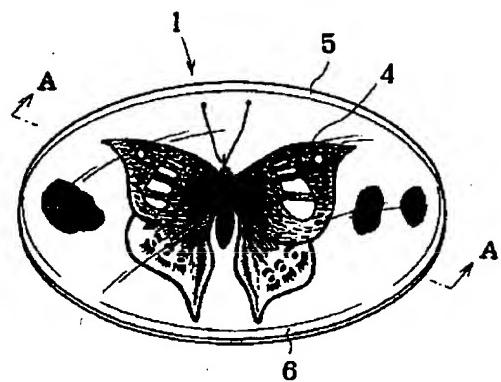


Figure 2

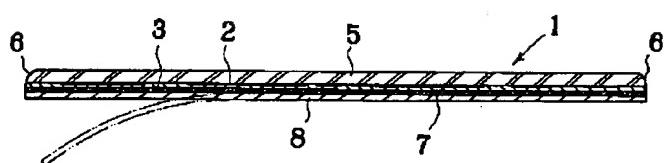


Figure 3

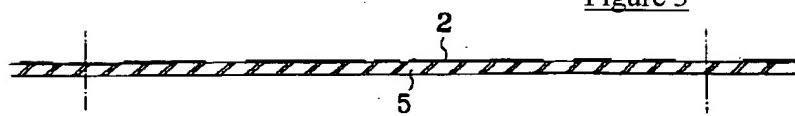


Figure 4

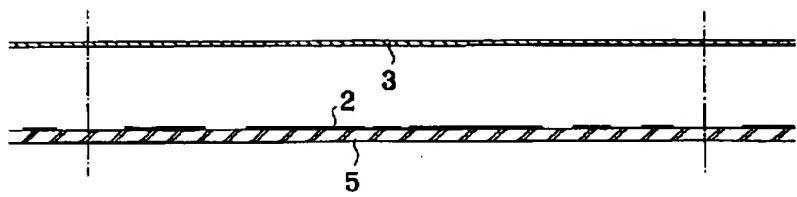


Figure 5

/4

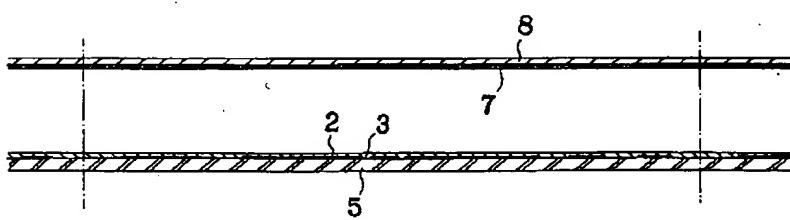


Figure 6

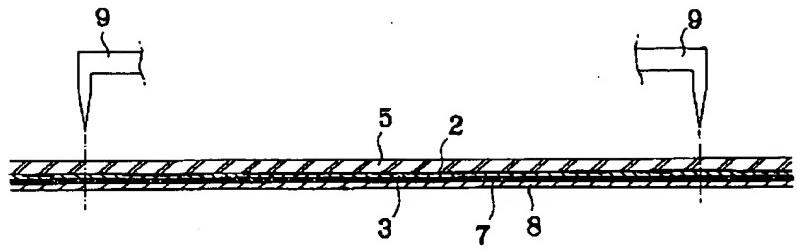


Figure 7

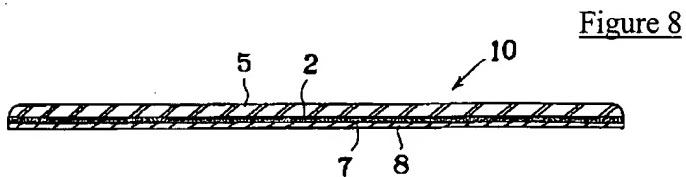
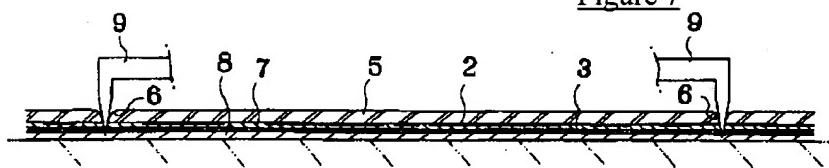


Figure 8

Figure 9

